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FINAL REPORT

November 1952

CHAPTER ELEVEN

JOINT COMMISSION FOR SPECTROSCOPY

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I. Introduction

This chapter presents a brief report on some of the activities of the Joint Commission for Spectroscopy, which met in Rome on 9, 10 and 11 September in connection with the IAU meeting.

II. Circular Dated July 1952; Attachment (1)

1. This circular lists the various sub-committees, some of whose reports were received in Rome. It is interesting to note that countries behind the "Iron curtain" did not respond to the questionnaires which were sent out by the J.C.S. The only reactions from these countries came from Prof. I. Kovacs (Budapest) saying that he would not be able to cooperate in commission (J.C.S.) in which Hungary had no representative; and from Prof. Ritschl (Berlin - Russian Zone), who was not allowed by the authorities to answer the questionnaires in their present form. He did give an independent short description of his equipment and the problems under study.

2. The report by P. Jacquinot on spectroscopic equipment may be of interest to many who have not seen it. No attempt will be made here to analyze this, except to point out that Section III on page 8 deals with the kind of receivers that are used in spectroscopy.

3. The provisional report on spectra of diatomic molecules provides a fairly good picture of current work in this important field, and it will provide the Air Force with a source of information which may be useful to several of its research centers. The survey is incomplete.

III. Replies to Questionnaire I

1. This questionnaire asked for a list of spectroscopic equipment, and the replies represent the best picture of world-wide spectroscopic equipment existing in research laboratories, that this writer knows about. This should be useful to the AFDC office in Brussels, and also to AGARD panels and to SAB panels whose interests might include Spectroscopy. Again, no effort will be made here to analyze these replies any further.

IV. Replies to Questionnaire III

1. This questionnaire dealt with the spectra of polyatomic molecules. This is a problem of great practical significance to many industrial laboratories. The report on this is in Attachment (3), which was prepared by the distinguished spectroscopist and leader in Canadian defence research, Dr. T. Hertzberg.

V. Remarks by Sub-Committee "B"

1. This is a sub-committee set up to help coordinate the activities of the relatively few placed in the world that are active in spectroscopic research. Professor Swings, who is one of the two signers of this report, has been similarly active in several areas of physics of the upper atmosphere and astrophysics. The work of sub-committees of this type provides a relatively simple and natural source of scientific intelligence; and at the same time it serve a very useful scientific purpose.

VI. Conclusion

1. It is to be noted that the J.C.S. is a very active and well conducted international group. Their next meeting is tentatively scheduled for

Columbus, Ohio in 1954, probably in the summer and in conjunction with some general scientific meeting. The president of the I.C.S. is Dr. W. F. Meggers, of the U.S. Bureau of Standards.